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An Inaugural Dissertation on Cynanche Maligna.

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A complete account of the periods, in which the Cynanche Maligna has appeared, is a desid=
=eratum in the Annals of medicine. The difficulty of collecting facts necessary to the history of any Epidemic is very considerable. A great proportion of historical writers have passed over with neglect if not with total silence, the occurrence of pestilential disorders, and med=
=ical authors in general have with more attention deli=
=neated the symptoms & mode of treatment, than the origin period and extent of a disease.

The Cynanche maligna is by some considered as a disorder of "recent origin" Allionius in a treatise "de milliarum origine" considers that the disease was unknown before the year 1510, at which time it was prevalent in Spain. Disorders however of much earlier date are on record, whose symptoms are in many respects very ana=
=logous to those of the disease in question.

Aretaeus of Cappadocia, who flourished about the end of the third century, has described a very malignant dis=
=temper of the Throat under the name of Ulcera Syriaca,

Caius Aetius a physician of the 5th century has described a disorder of the throat, which was marked by "Sloughy and pestilential ulcers of the fauces frequently succeeding to inflammation. They took place most in children and virgins at the age of puberty, but now and then affected adults, especially those of a bad habit of body, in the pestilential constitutions of the Spring season.

It is uncertain wether any other ancient writer has described any disorder related to Cynanche Maligna. Dr. Fothergill, who has traced the history of the disease down to his own time, begins with its appearance in Spain A.D. 1610. Previously to this, however, several malignant distempers of the throat had been mentioned by various writers. In the years 1515 & 1517 a most malignant and contageous angina prevailed in several parts of Holland, The exact nature of the disease is not known; the principal symptoms, as described by Tyengius a physician of Amsterdam, were pain & inflammation of the throat, difficulty of breathing, and oppression of the heart. The disorder was very infectious and mortal.

1575 a scarlet fever and malignant sore throat were very fatal in Paris., having existed several years before in lower Germany in the form of Scarlatina anginosa. The disease was marked by inflammation of the uvula, difficult deglution, ulcerations of the fauces and attended with coryza and an implacable thirst with anorexia. In some cases the bowels were costive, in others a diarrhea of fated matter occurred.

A more accurate account of the disease is given by Francesco Nola in a treatise published at Naples in 1620. According to him it was preceded by a number of different epidemics. In the year 1616 after a very rainy season a contageous distemper affected the cattle, & in the year following, the Small pox, measles & erysipelatas raged among the inhabitants. Before these eruptive disorders had subsided, the sore throat began to affect children and in the autumn of 1618 became extremely malignant. It proved particularly fatal to persons of a weak and humid temperament or predisposition.

In 1620 a treatise was likewise published by J. A Sgambatus a Physician of Naples "De pestilente Sanguinis affectu." Several other dissertations were afterwards written among which were a treatise on the Morbus Strangulatorius by Etius Cletus published at Rome 1636. A treatise on "angina Maligna by Petrus Michael de Heredia Lyons 1673. From the writings of these and others. Dr Fothergill has collected a general description of the disorder in those times.

Since the above periods, the ulcerated sore throat has been an epidemic of frequent recurrence. In the year 1664, according to Bonnetus, a malignant purple fever attended with inflammation of the throat and particularly fatal to children, was prevalent in various parts of Europe.

In 1700 a very fatal disease raged in the island of Milos in the Levant. It consisted of a sore at the bottom of the throat, attended with a most violent fever. It carried off children in two days. It was called the plague of infants. M. Tournefort who has described it in his Voyage du Levant, remarks that it was a common disorder in the Levant isles.

In 1735 the 'angina ulcerculosa' so termed by Dr. Douglass of Boston was first known in America. Its first appearance was at Kingston in the State of New Hampshire in the month of May. As this was an inland town it was remarked that the disorder could not have been of foreign importation. Its mortality was greater than that of any disease which had been known since the settlement of the country. From Kingston the ensuing following, the disorder reached Exeter, and in September it was observed in Boston. And disappeared in that place in 1736.

The appearance of the disorder in New York was not noticed untill two years after its commencement at Kingston, A description of it here was given by Cadwallader Colden Esqr. in a letter to Dr. Fothergill oct. 1st 1753, and likewise by Dr. Ogden of Long Island. The disorder first appeared in those places to which the people of New England resorted to trade. It continued for some years in the vicinity of the Hudson, occasionally breaking out in families without any previous observable cause. A great diversity was observed in the malignancy of the disorder, the symptoms being slight

in some, in others very violent. Dr Colden's letter may be found in the American Museum, 3d vol.

In 1743 a malignant angina appeared at Paris, It was described by M. Malouin, according to this writer none who had the disorder escaped with life, and it some times proved fatal in nine hours from the commencement of the fever.

In the years 1747 & 1748 the "putrid sore throat attended with ulcers" prevailed in London, & at this time Dr Fothergill published his treatise. It had existed for ten years before in various parts of Holland France & England. During its prevalence very ample accounts of it were given by Drs Fothergill, Huxham Cotton, Starr, Russel, & Wall in different parts of England. Dr Fothergill remarks that the summers of 1747 and 8 were dry with some days in each uncommonly hot for the climate. The autumns of the same years were unusually temperate and warm, the wind continuing longer in the southerly points than was common in that season.

In 1755 the disease was attended with considerable mortality in the American colonies, In one town in Long Island only 2 children under 12 years survived.

In 1770 the angina Maligna was felt in Jamaica (see an account by Wm Wright M.D. American Museum 1. 39.)
In 1771 a sore throat and Scarlet fever prevailed at Copenhagen.

In 1777 the Scarlet fever and sore throat prevailed in various parts of England. It continued several years The mortality at this time was pretty extensive, especially among children, delirium often commenced within a few hours after the first seizure. The flesh was intensely hot: the Scarlet colour appeared on the first or second day and they died very early on the third.

In 1783 a sore throat and Scarlet fever again spread in the United States. according to the accounts given by Dr Rush. in his medical inquiries & observations. Since the above period the distemper has frequently recurred in various parts of the United States, but generally without that extensive spread and frequent mortality which formerly attended its appearance. Accounts of it have been given by Dr Bard of New York. in the first vol. of transactions of the American Philosophical society 1789. By Dr Aspinwall of Massachusetts in a treat. published in 1798. By Dr Pascalis of Phil.a in the 6th vol. of the Medical Repository 1802. By Dr Farquhar of Jamaica in the Medical Museum vol. 1. 1800. In England the disease has of late been occasionally noticed or described by Messrs Headly, Blackburn, Reid, King and Binns.

From the foregoing history of the disorder and from the writings of the authors above mentioned it appears. 1st That the disorder

is not apparently controlled by any peculiarity of climate or season.

2d. The prevalence of Scarlatina has generally been concomitant with that of Cynanche Maligna. A great majority of the writers above mentioned have either recorded the fact, or related circumstances which justify the conclusion. Some of these will be hereafter referred to in speaking of the diagnosis of the disease.

3. A great variety has occurred in the symptoms of the disorder in different periods and in different individuals at the same period.

I shall next say a few words concerning the symptoms of Cynanche Maligna. In its first attack it often differs not essentially from simple fever. The patient is affected with lassitude, anxiety, vertigo and pain, he has fits of cold shivering attending with heat together with thirst, restlessness and other febrile symptoms. The disorder of the heart and vascular system the lungs & stomach, is indicated by a frequency of pulse hurried respiration, nausea and disgust for food Early in the disease and sometimes as a primary symptom the patient feels a sense of stiffness and uneasiness in the neck accompanied with painful deglutition. On examining the fauces a degree of redness and inflammation is discovered on the tonsils uvula and velum palati: These soon after exhibit the appearance of whitish specks between a brown and cinnabar colour. As the disease progresses

the patient complains of violent pains in the head, back and loins the eyes are heavy and watery, the countenance either full and bloated, or pale, sunk and dejected; an unusual degree of oppression and debility reigns thro. the system the pulse is small tremulous, indistinct and irregular; the tongue is sometimes loaded with white acid mucus at others with a black incrustation extending to the teeth and lips. The discoloured spots on the fauces spread rapidly uniting with each other till the greater part of the fauces is at length covered with them.

The superficial parts having assumed a dark and livid hue, begin now to slough off, discovering beneath them ulcers deeply seated and ill conditioned. The interstices and circumscribing margins of the spots and ulcers generally a florid purple colour. These appearances are attended with coryza of acrid and fetid matter, at first thin but afterwards thick and yellowish, excoriating the nostrils and lips, and impregnating the breath with its offensive effluvia. It is so acrid as to produce blisters on the external skin, when brought in contact with it; and when swallowed to irritate the alimentary canal, inducing severe diarrhea. The matter discharged by this catharsis is very acrid excoriating the anus and neighbouring parts.

The dyspnoea attendant on Cynanche Maligna suffers evident exacerbations in the evening with considerable remissions in the morning. Marks of anxiety are strongly impressed on the countenances in the first stage of the disorder, but are observed to wear off as it increases. The eyes at a more advanced period exhibit a kind of

langueid inflammation and in the worst cases are suffused with blood. Deliriuim or coma of the mental faculties supervene in the course of the disease & sometimes these two affections alternate with each other.

About the second or third day of the disorder an efflorescence or rash appears on the Skin, It is commonly in irregular patches of a pale red colour, similar to the eruption in Scarlatina, except that it is fainter and less universal, It is first visible on the face, neck and breast, in Small points which become continuous and Spread to the extremities. The stains or discolorations at first appear on a level with the rest of the Skin, but on minute examination their prominence is discoverable by the sight or sense of feeling. Sometimes elevated pustules appear distinguishable from the parts around them by their intense redness. In the progress of the disorder the eruption changes its redness for a dark and livid hue, which has been compared to the colour of a dead body two or three days after Death, or to a diffusion of blood and water visible thro. the transparent cuticle, The eruption on the extremities is not unfrequently attended with stiffness and pain of the joints particularly those of the fingers. In mild cases a remission of Symptoms often takes place on the appearance and still more frequently on the termination of the eruption; but in the worst cases no alleviation ensues from it.

The duration of the eruption is uncertain like that of the disease before its appearance, it is seldom less than one or more than four days in continuance, Sometimes off and afterwards reappears, a Symptom which is generally unfavourable.

The eruption terminates by a separation of the cuticle and the prognosis of the disease is more or less favourable as the desquamation is more or less copious, As in other eruptive fevers, the efflorescence in Cynanche Maligna has sometimes suddenly disappeared, and a train of the most dangerous Symptoms has supervened. A sudden transition of the eruption from a bright red colour to one livid and pale is equally alarming.

As the disease advances the pulse becomes still more depressed. During the evening exacerbation the breathing is rattling and Stertorous. The Skin is usually parched and hot as in malignant typhus, and Sometimes petechiæ interspersed with the eruption. The ulcerations of the fauces continue to extend, becoming more black and fœtid until portions of mortified flesh slough off and are ejected from the mouth. The tendency of the System to gangrene is so great, that in many cases where V. S. was employed the place of incision made by the lancet often Sphacelated. The head is commonly retracted, the neck full and livid the tongue so tender that the Slightest touch produces excoriation. The absorption of acrid matter from the fauces frequently produces inflammation extending along the eustachian tube to the ear, at other times it Spreads to the parotid, maxillary and other glands near the fauces. The trachea and Bronchia the Stomach and brain are occasionally attacked with inflammation. In the last and incurable stages of the disorder, the fauces are black, the eruption of a dark

purple hue, the extremities are cold & covered with a clammy sweat, they eyes appear glassy & lifeless, faces of the most fœtid kind are passed involuntarily. A hiccups often attends, and the respiration is difficult sonorous and interrupted. A general stupor oppresses the senses, the pulse intermits and at length cannot be felt, and the sufferer gradually expires or dies in convulsions.

The foregoing sketch of the most usual symptoms applies only to a majority of cases. Many anomalies occur both in the periods and nature of the symptoms some of them frequently do not appear; and frequently others of a more eccentric nature supervene.

The Cynanche Maligna is extremely various in the time of its appearance, and the malignity of its type. This its history will shew.

The circumstances which tend to increase the virulence of the disorder are warm and moist weather, a sickly habit of body, putrid effluvia, particularly such as arise from close and crowded rooms, want of cleanliness and attention, and such causes as tend to irritate either body or mind.

From all that has been said it will evidently appear, that Scarlatina and Cynanche Maligna are but varieties of the same disorder. The reasons which induce this conclusion are as follows. 1. That the two diseases have been concomitant in most instances both in the time and place of their appearance.
2 That they apparently arise from the same source of contagion. 3 That in some cases the two disorders run into each other, so that a line of discrimination between them becomes impracticable, even if it were necessary.

From many circumstances it seems highly probable, that Scarlet fever and malignant sore throat, are both names of the same distemper. And this opinion is confirmed by finding them both affecting a family or a number of children at the same time.

From the union of the diseases, we may rationally conclude that they proceed from the same source of contagion, since it is improbable that the introduction of Scarlatina into a family should be followed by cases of Cynanche Maligna & vice versa, unless these two forms were capable of propagating each other.

Several cases within my notice have confirmed this opinion.

I In May 1804 two children in the same family were taken with the throat distemper. The ulcerated fauces were sloughy and fœtid, and the eruption which ensued faint and livid. In two days from the seizure of the children, the father a man of ordinary health aged 31, was attacked with all the symptoms of scarlet fever. The throat was scarcely affected, the cutaneous eruption was livid, intense and universal; and the fever ran very high. The Mother who was taken one day afterwards had the fœtid sore throat without the least appearance of any eruption on the Skin, and a Servant Maid who escaped during the first week, had finally both the efflorescence and sore throat. In the space the children who could not be persuaded to take medicines both died, one on the third the other on the fifth day of the disease. The adults all survived. In the above instances every variety of the disease appeared, and the infection was undoubtedly communicated by one individual to another, as no other family at that time had the disorder, within the distance of two miles.

II A girl of about 17 years of age was taken scarlet

fever, A young man of a debilitated habit in the same family was seized with a sore throat 4 days afterward. Both patients received the same treatment and both recovered in about a month.

On the whole it is of little consequence to what rank we refer it, in the treatment and method of cure, A due attention to the State of the pulse and Symptoms will serve to indicate the best and most rational method of treatment.

Treatment.

The treatment of cynanche Malignea may be divided into the general and local, or according to the Symptoms and State of the System, The method of treatment formerly in use, was generally to attempt the cure of the disease by the use of copious evacuations, But experience and the method of treatment taught in this University, has led Physicians to a more effectual and judicious practice.

The use of emetics especially at the beginning of the disease is attended with favourable effects, They were employed by Drs. Withering

and Willan, with much advantage, in arresting or ameliorating its Symptoms. The latter of these gentlemen observes, that "a bold & persevering course of emetics may be considered as the most effectual method of obviating the singular malignity of this disease."

The emetics most usually employed are either tartar emetic or ipecacuanha, according to the prejudices, habits or constitutions of the patients; and frequently combined with calomel. The last is the one most generally employed in Philadelphia. Also turbith mineral by itself has been used with success. In cases where the calomel purges too freely, it may be necessary to add a small quantity of opium. And where it fails of opening the bowels, lenient purges may be exhibited as there is ~~often~~ sometimes a disposition to costiveness.

A gentle perspiration may be kept up, by exhibiting doses of Antimonials and diluent drinks, as wine whey &c – and which always give relief.

The throat should be kept clean by gargles. A mixture of hot wine and finely

powdered bark, infusions of rose leaves, sage or a mixture of honey & vinegar, are useful in mild cases. In cases of great difficulty of breathing or swallowing, the steams of warm water mixed with a little vinegar, inhaled through a funnel into the throat.

The external local remedies are, blood letting and blistering, If the above remedies have failed, A blister may be applied behind the ear or to the neck, and with good effect.

In the more advanced state of the disease where there is a tendency to ~~putrid~~ mortification or gangrene, stimulants, tonics, and a generous diet, must be resorted to.

Mercury has been recommended in this disease as early as 1736, and much extolled in effecting a cure, Dr Bard of New York in 1789 spoke very highly of its use. As for my own part, I can ~~but~~ say but little on this subject, having seen but few cases of this disease. A Physician in the State of Delaware not only gave calomel, but anointed the outside of the throat with mercurial ointment.

When there are inflammatory symptoms the disease yields like other epidemics to blood-letting, and other depleting remedies. To conclude, this distemper must be treated like every other disease. That is according to the Method taught by the Professor of Institutes in this University. The pulse and Symptoms are the Physicians guide. Thus I return my sincere thanks to those Authors mentioned in the history; and to the lectures of Dr. Rush. to whom I am indebted for these remarks.

John F. Chambers.